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09/740,076	12/19/2000	James D. Thornton	D/99578	4563

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EXAMINER

NGUYEN, ANH T

ART UNIT	PAPER NUMBER
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2127

DATE MAILED: 01/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/740,076

Applicant(s)

THORNTON ET AL.

Examiner

Anh T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 . 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is responsive to application 09/740,076, filed 12/19/2000.
2. The title of the invention is "Method and System for Executing Batch Jobs by Delegating Work to Independent Service Providers", as originally filed.
3. Claims 1-30 are presented for examination.

### *Specification*

4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is required for correcting any errors of which applicant may become aware in the specification. Appropriate correction is required.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

WAB  
12/15/03

Claims 146 and 24-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. For claims 1-16, the system and apparatus fails to include a positive recitation of any hardware components and are thus not tangible. As claimed, the "information storage medium" of claim 24 is such a broad recitation that the software described is not necessarily computer readable and executable. Therefore, the claims are directed to nonfunctional descriptive material.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirabayashi, (USPN 6,549,936).

**Regarding Claim 1:**

Hirabayashi discloses,

a client communications part which receives a batch job from a client(Hirabayashi, col.6, lines 28-30, “The server gateway carries out the following processing: Receiving a variety types of requests (demand) from the respective clients”);

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an extracting part which extracts a task from the batch job(Hirabayashi, col.2, lines 48-49, “a step of extracting, by the second computer, the content of the plurality of scripts in the request data stream”); and,

an assigning part which receives a first signal from at least one of the plurality of service providers, and in response to the first signal delegates the task to one of the plurality of service providers for performing the task(Hirabayashi, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”).

**Regarding Claim 2:**

Hirabayashi discloses wherein the plurality of service providers are operating on a plurality of machines (Hirabayashi, see FIG.1, col.6, lines 11-14, “Platforms (for example, UNIX, a mainframe, or Windows NT (i.e., brand name of Microsoft Corporation)) that are independent of each other can be used as the respective servers and the respective clients”).

**Regarding Claim 3:**

Hirabayashi discloses wherein the first signal informs the assigning part of the service providers ability to execute a task (Hirabayashi, col.6, lines 53-55, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”).

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**Regarding Claim 4:**

Hirabayashi discloses at least one contact part which receives a second signal from the service providers, which updates the status of the task being performed by the service provider (Hirabayashi, see FIG.9, element 913, col.11, lines 48-51 “the state display unit 913 issues, to the request analyzing unit 921 in the server 920, a request for the job-information acquisition (GET) for inquiring in what state the registered job lies at present”).

**Regarding Claim 5:**

Hirabayashi discloses wherein the first signal specifies a minimum frequency at which the second signal will be sent to the contact part (Hirabayashi, col.3, lines 13-14, “the executing instruction being included in the request data stream”).

**Regarding Claim 6:**

Hirabayashi discloses wherein the second signal informs the contact part of completion of the task (Hirabayashi, col.3, lines 25-27, “a result of the second computer's executing the job, and a step of receiving, by the first computer, the plurality of result files”).

**Regarding Claim 7:**

Hirabayashi discloses being in communication with a job database which stores the batch job upon receipt from the client (Hirabayashi, see FIG.9, element 923, col.10, line 45, “registers a job into the job queue 923”); and the job database being regularly updated as jobs are executed

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by batch job execution system (Hirabayashi, see FIG.9, element 922, “job queue managing unit”, col.10, lines 46-48, “an executing instruction for the command is registered into the job queue 923”).

**Regarding Claim 8:**

Hirabayashi discloses a retrieving part which retrieves the batch job from the job database when the batch job is to be executed (Hirabayashi, col.11, lines 2-4, “regard the executing instruction as being fetched from the request data stream and registered in the job queue”).

**Regarding Claim 9:**

Hirabayashi discloses,

a job management apparatus in communication with the clients which receives a batch job from a client(Hirabayashi, col.6, lines 28-30, “The server gateway carries out the following processing: Receiving a variety types of requests (demand) from the respective clients”), extracts a task from the batch job(Hirabayashi, col.2, lines 48-49, “a step of extracting, by the second computer, the content of the plurality of scripts in the request data stream”), and assigns the task(Hirabayashi, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”);

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a job database in communication with the job management apparatus which stores the batch job(Hirabayashi, see FIG.9, element 923, col.10, line 45, “registers a job into the job queue 923”);

a plurality of service providers in communication with the job management apparatus which receive the assigned task, perform the task, and return a result to the job management apparatus(Hirabayashi, see FIG.1, col.6, lines 11-14, “Platforms (for example, UNIX, a mainframe, or Windows NT (i.e., brand name of Microsoft Corporation)) that are independent of each other can be used as the respective servers and the respective clients”); and,

at least one provider manager in communication with the job management apparatus and in communication with the plurality of service providers which monitors the tasks being performed on the service providers and provides status information to the job management apparatus.

(Hirabayashi, see FIG.9, element 920, “server”).

**Regarding Claim 10:**

Hirabayashi discloses wherein the provider manager in response to a request from the job management apparatus assigns additional service providers to receive tasks from the job management apparatus (Hirabayashi, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”).



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**Regarding Claim 11:**

Hirabayashi discloses wherein if the service provider fails to complete the task within a predetermined time, the provider manager communicates with the service provider, and informs the job management apparatus of the task status in response to the communication with the service provider (Hirabayashi, see FIG.9, element 913, col.11, lines 48-51 “the state display unit 913 issues, to the request analyzing unit 921 in the server 920, a request for the job-information acquisition (GET) for inquiring in what state the registered job lies at present”).

**Regarding Claim 12:**

Hirabayashi discloses wherein the provider manager informs the service provider performing the task to terminate performance of the task in response to a signal received from said job management apparatus (Hirabayashi, see FIG.4, col.8, lines 13-16, “After these processings, the server 401 executes a close, thus terminating the communication sequence”).

**Regarding Claim 13:**

Hirabayashi discloses,

a first service provider configured to send a first signal for requesting work(Hirabayashi, see FIG.1);

a second service provider configured to send a second signal for requesting work(Hirabayashi, see FIG.1); and,

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a job management apparatus including an assigning part and a contact part in communication with the first and second service providers, the assigning part configured to delegate one of the tasks to one of the first and second service providers responsive to receiving the first and second signals from the service providers (Hirabayashi, see FIG.9, element 921, element 912).

**Regarding Claim 14:**

Hirabayashi discloses a provider manager associated with the first service provider, the provider manager in communication with the job management apparatus and configured to send control signals between the first service provider and the job management apparatus (Hirabayashi, see FIG.9, element 920, element 910).

**Regarding Claim 15:**

Hirabayashi discloses wherein the provider manager is further associated with the second service provider and configured to send control signals between the second service provider and the job management apparatus (Hirabayashi, see FIG.9, element 920, element 910).

**Regarding Claim 16:**

Hirabayashi discloses wherein the first and second service providers are in communication with the job management apparatus via a data network (Hirabayashi, see FIG.1, element 120).

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**Regarding Claim 17:**

Hirabayashi discloses,

submitting a batch job with processing parameters to a job management apparatus(Hirabayashi, col.3, lines 16-18, “request data stream should be a text data-formatted stream and, utilizing predetermined tags, describe various types of parameter information”);

storing the batch job in a job database(Hirabayashi, col.3, lines 9-10, “storing the content of the plurality of scripts as a script file for each script”);

receiving a first signal from at least one of a plurality of service providers which informs the job management apparatus of the service providers ability to perform a task(Hirabayashi, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”);

determining whether the batch job execution system is able to process the batch job(Hirabayashi, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”);

extracting at least one task from the batch job(Hirabayashi, col.2, lines 48-49, “a step of extracting, by the second computer, the content of the plurality of scripts in the request data stream”);

delegating the task to the service providers in response to the first signal(Hirabayashi, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the

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respective clients and analyzes the request, then judging to which server the request should be transferred”);

performing the task delegated to the service provider(Hirabayashi, col.2, lines 51-52, “a step of executing, by the second computer”);

completing the task;and, returning a result from the service provider to the job management apparatus (Hirabayashi, col.3, lines 25-27, “a result of the second computer's executing the job, the plurality of result files”).

**Regarding Claim 18:**

Hirababyashi discloses retrieving the batch job from the batch job database prior to the step of extracting at least one task (Hirabayashi, see FIG.11, step 1101, col.11, lines 7-8, “at a step 1101, the execution managing unit 924 fetches, from the job queue 923, a job to be executed next”).

**Regarding Claim 19:**

Hirabayashi discloses wherein the step of delegating further comprises delegating a plurality of tasks to the plurality of service providers to be performed in parallel (Hirabayashi, see FIG.1, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”).

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**Regarding Claim 20:**

Hirabayashi discloses wherein the step of performing, further includes receiving a second signal from the service provider performing the task which updates the status of the task being performed provider (Hirabayashi, see FIG.9, element 913, col.11, lines 48-51 “the state display unit 913 issues, to the request analyzing unit 921 in the server 920, a request for the job-information acquisition (GET) for inquiring in what state the registered job lies at present”).

**Regarding Claim 21:**

Hirabayashi discloses wherein the step of determining further includes assigning additional service providers to perform tasks for the job management apparatus if it is determined that the batch job execution system is unable to process the job (Hirabayashi, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”).

**Regarding Claim 22:**

Hirabayashi discloses,

communicating with the service provider performing the task after a predetermined time(Hirabayashi, see FIG.4, communication sequence);

informing the job management apparatus of the tasks status; and, the job management apparatus determining whether to re-assign the task or wait for task completion in response to

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the step of updating the task status (Hirabayashi, col.6, lines 24-25, “display the state of the queue by inquiring of the server about the state”).

**Regarding Claim 23:**

Hirabayashi discloses terminating the step of performing the task in response to receiving a signal from the job management apparatus, prior to the step of completing the task (Hirabayashi, see FIG.2, col.6, lines 25-26, “can cancel the job registered in the queue”).

**Regarding Claim 24:**

Hirabayashi discloses,

a client communications software component which receives a batch job from a client(Hirabayashi, col.5, lines 65-66, “a program-executing instruction written in a predetermined job control language”) (Hirabayashi, col.6, lines 28-30, “The server gateway carries out the following processing: Receiving a variety types of requests (demand) from the respective clients”);

an extracting software component which extracts a task from the batch job(Hirabayashi, col.5, lines 65-66, “a program-executing instruction written in a predetermined job control language”) (Hirabayashi, col.2, lines 48-49, “a step of extracting, by the second computer, the content of the plurality of scripts in the request data stream”); and,

an assigning software component which receives a first signal from at least one of a plurality of service providers, and in response to the first signal delegates a task to one of the plurality of service providers for performing the task (Hirabayashi, col.5, lines 65-66, “a

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program-executing instruction written in a predetermined job control language”) (Hirabayashi, col.6, lines 53-56, “The server gateway 203 receives the request block 202 transferred from the respective clients and analyzes the request, then judging to which server the request should be transferred”).

**Regarding Claim 25:**

Hirabayashi discloses wherein the assigning software component monitors which service providers are able to perform a task (Hirabayashi, col.6, lines 55-56, “analyzes the request, then judging to which server the request should be transferred”).

**Regarding Claim 26:**

Hirabayashi discloses a contact software component which receives a second signal from the plurality of service providers which informs the contact software component of the status of the task being performed (Hirabayashi, see FIG.12, step 1202(returning present execution state), col.6, lines 24-25, “display the state of the queue by inquiring of the server about the state”).

**Regarding Claim 27:**

Hirabayashi discloses wherein the first signal specifies a minimum frequency at which the second signal will be sent to the contact software component (Hirabayashi, col.3, lines 13-14, “the executing instruction being included in the request data stream”).

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**Regarding Claim 28:**

Hirabayashi discloses a job database software component which stores the batch job upon receipt from the client, wherein the client communications software component is in communication with the job database software component (Hirabayashi, see FIG.9, element 923, col.10, line 45, “registers a job into the job queue 923”).

**Regarding Claim 29:**

Hirabayashi discloses a retrieving software component which retrieves the batch job from the job database software component when the batch job is to be executed (Hirabayashi, col.11, lines 2-4, “regard the executing instruction as being fetched from the request data stream and registered in the job queue”).

**Regarding Claim 30:**

Hirabayashi discloses at least one provider manager software component in communication with the plurality of service providers which monitors the tasks being performed on the service providers (Hirabayashi, see FIG.9, element 920, “server”) and provides status information to the job management software component (Hirabayashi, see FIG.12, step 1202 (returning present execution state), col.6, lines 24-25, “display the state of the queue by inquiring of the server about the state”).



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***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T Nguyen whose telephone number is (703) 305-8649. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Grant, can be reached on (703) 308-1108. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5484.

Anh T. Nguyen 

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December 10, 2003

  
WILLIAM GRANT  
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12/10/03